

CLAIMS

1. A welding electrode (1) for use in manual arc-welding operations, said electrode comprising a core wire (5) having an arc ignition portion (3) including an arc ignition face (4), the cross-sectional area of said arc ignition portion (3) being reduced relative to the main cross section of the core wire (5), characterised in that said arc ignition portion (3) is formed with at least one recess (7) the mouth of which opens in the longitudinal lateral face of the core wire.

2. A welding electrode including a core wire as claimed in claim 1, wherein the mouth of said recess (7) also has an extension in over the arc ignition face (4).

3. A welding electrode including a core wire as claimed in any one of the preceding claims, wherein said recess (7) is a notch.

4. A welding electrode including a core wire as claimed in any one of the preceding claims, wherein said recess (7) opens in two oppositely positioned lengthwise lateral-face portions of the core wire.

5. A welding electrode including a core wire as claimed in claim 4, wherein said recess (7) forms a slit.

6. A welding electrode including a core wire as claimed in any one of the preceding claims, wherein said recess (7) is rectilinear.

7. A welding electrode including a core wire as claimed in claim 5 or 6, wherein the mouth of said recess (7) has an extension as seen in the longitudinal direction of the welding electrode (1).

8. A welding electrode including a core wire as claimed in any one of the preceding claims, wherein said recess (7) extends through the centre of the ignition face (4).

9. A welding electrode including a core wire as claimed in any one of the preceding claims, which is

coated with a material (6) that forms slag and shielding gas during the welding operation and wherein said recess (7) has a filler of said slag and shielding-gas forming material (6).

10. A welding electrode comprising a core wire as claimed in claim 9, wherein said recess (7) is filled with the material forming slag and shielding gas.

11. A welding electrode comprising a core wire as claimed in any one of the preceding claims, wherein said recess (7) extends 3-9 mm, more preferably 4-8 mm and most preferably 5-7 mm in the lengthwise direction of the welding electrode (1) and have a width (a), calculated across the longitudinal direction of the electrode (1) that corresponds to a reduction of the diameter of the core wire (5) by 30-40%.

12. A device (10) in the manufacture of welding electrodes (1) for use in manual metallic arc welding operations, said manufacturing process comprising a unit for the manufacture of core wires and a unit for applying on said core wires (5) a material (6) forming slag and a shielding gas during the welding operation, characterised in that said device has at least one shaping unit formed with at least one slitting means (40) for forming at least one slit in one of the end portions of said core wires (5), and at least one holding means (23), in which said core wires (5) are arranged to be collected in order to be advanced sequentially past the slitting means (40).

13. A device as claimed in claim 12, said device comprising a conveyor means arranged to displace the core wires (5) in their longitudinal direction.

14. A device as claimed in claim 12, said device comprising a conveyor means arranged to displace the core wires (5) in their transverse direction.

15. A device as claimed in claim 13 or 14, wherein said conveyor means arranged to displace the core wires

(5) in their transverse direction in the section of the slitting means (40);

16. A device as claimed in any one of claims 12-15, wherein said conveyor means is also arranged to displace the core wires in inter-parallel relationship in the section of the slitting means.

17. A device as claimed in any one of claims 12, 14-16, wherein the conveyor means is also a holding means (23).

18. A device as claimed in any one of claims 12-15, wherein said shaping unit is placed after the cutting unit and before the application unit, as seen in the order of manufacture.

19. A device as claimed in any one of claims 12-16, wherein in the area of said one end portion of the core wires (5) the holding means (23) is formed with an opening for access by the slitting means (40).

20. A device as claimed in any one of claims 12-19, wherein said device is formed with a guide means (15) to guide the core wires towards said slitting means (40).

21. A device as claimed in any one of claims 12-19, wherein said slitting means (40) is formed with a sawing tool.

22. A device as claimed in claim 21, wherein said slitting means (40) comprises a saw band.

23. A device as claimed in claim 22, wherein said saw band is continuous.

24. A device as claimed in any one of claims 12-13, 15, 16, 18, 19, 21-23, wherein the holding means (23) is arranged to displace to core wires (5) in an essentially vertical direction.

25. A device as claimed in any one of claims 12, 14-19, 21, 25, wherein the holding means (23) is arranged to displace the core wires (5) in an essentially horizontal direction.

26. A device as claimed in claim 24, wherein the holding means (23) is arranged to displace the core wires (5) past said slitting tool (40) by making use of the inherent gravity of the core wires (5).

27. A device as claimed in any one of claims 12-13, 15-16, 18-19, 21-24, 26, wherein the direction of movement of the cutting part of the slitting means (40) form an angle relative to the said one end portion of the core wires (5).

28. A device as claimed in claim 23, wherein said saw band is arranged to travel around deflection wheels.

29. A device as claimed in any one of claims 12-28, wherein the holding means (23) is arranged to retain the core wires (5) in an essentially horizontal position.

30. A device as claimed in claim 21, wherein said slitting means (40) comprises a circular saw blade.

31. A device as claimed in any one of claims 12, 14-19, 21, 25, 29, 30, wherein the holding means (23) has a wedge-shaped profile configuration for reception therein of said core wires (5).